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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.       |
|--|-------------|----------------------|-------------------------|------------------------|
| 10/507,310   | 04/21/2005  | Leif Carlsson        | B1705.0010/P010         | 4419                   |
| 24998  | 7590        | 10/16/2007           |                         |                        |
| DICKSTEIN SHAPIRO LLP<br>1825 EYE STREET NW<br>Washington, DC 20006-5403 |             |                      | EXAMINER<br>YANG, JIE   |                        |
|  |             |                      | ART UNIT<br>1793        | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>10/16/2007 | DELIVERY MODE<br>PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/507,310

Applicant(s)

CARLSSO ET AL.

Examiner

Jie Yang

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09/10/2004.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Regard IDS marked 09/10/2004, the foreign references CA and CB are marked out from present information for not including in the instant application.

Claims 1-2, and 5-10 are amended from original claims, claims 1-10 are pending for examination.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claims 3-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "modified" in claims 3-4 is a relative term which renders the claim indefinite. The term "modified" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

#### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 3-5, 7 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by Nunes (US 3,871,925, thereafter, '925).

Regard to claims 1 and 5, '925 teaches a type 18-8 (Fe, Cr, Ni, and C are in predetermined proportion) stainless steel material for cold work, which anticipates the limitations of wholly or partially plastically cold worked by stretch forming or stretch bending as recited in the instant claim, to get high tensile strength (Abstract of '925). '925 teaches different cold work levels at different temperatures to obtain different tensile strengths; '925 further teaches two or more steps in deformation operation (plastically cold work) (Col.4, line 25 to Col.6, line 71 of '925).

Regard to claims 3, 4, 7, and 9, '925 teaches controlling the temperature and deformation degree in each of warm working and cold working steps to get desired high yield point (See examples in Col.4, line 25 to Col.6, line 71 of '925).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over '925 and in view of "Austenitic wrought stainless steel, Crucible 301" (Woldman's Engineering alloy 9<sup>th</sup> ed. J. Frick editor, ASM international 2000, thereafter 'ASM301).

'925 does not specify the composition and yield strength of austenitic steel. However, type 301 austenitic stainless steel is a well-known commercial steel, which is listed in 'ASM301 under term "Austenitic wrought stainless steel, Crucible 301". 'ASM301 teaches the alloy has Cr: 17%wt.; Ni: 7%wt.; C: 0.2%wt. maximum, and balanced by Fe, which overlap the Cr, Ni, C, and Fe composition claimed in the instant claim 2. 'ASM301 further teaches rolling operation could change the yield strength (YS) from 40 ksi, which is very close to the claimed about 300MPa as recited in the instant claim, to 140 ksi (rolled status: ~965 MPa), which is within the yield strength range (about 700MPa to about 1000MPa or higher) as recited in the instant claim 6. The rolling operation is one of the stretch method (noted by examiner). '925 teaches the different cold work levels at different temperatures to obtain different tensile strengths (Col.4, line 25 to Col.6, line 71 of '925), which would be proper to apply to different austenitic steels including the steel of 'ASM301. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use predetermined temperature and /or deformation degree

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to obtain desired cold working as demonstrated in 'ASM301 in process of '925 in order to obtain desired yield strength.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over '925.

Regard to claims 8 and 10, '925 does not specify the deformation temperature from  $-196^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ . However, '925 teaches controlling the temperature and deformation degree in each of warm working and cold working steps to get desired high yield point (See examples in Col.4, line 25 to Col.6, line 71 of '925). '925 further teaches that the deformation temperature should be controlled at from  $150^{\circ}\text{F}$  to  $500^{\circ}\text{F}$  above the  $M_{d30}$  temperature ( $M_{d30}$  is  $-45^{\circ}\text{F}$  in example 1, col.4, line 25-53 of '925). Therefore the calculated deformation temperature is  $\sim 40^{\circ}\text{C}$  to  $260^{\circ}\text{C}$ , which overlaps the temperature range from  $-196^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  as recited in the instant claims. '925 teaches an alloy (18-8 steel) with a composition (Col.2, line 30-40 of '925) overlapping the claimed composition, using similar cold working to increasing the yield strength of material as recited in the instant claims. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to choose a deformation temperature from  $-196^{\circ}\text{C}$  to  $70^{\circ}\text{C}$  to obtain the desired yield strength (Col.4, line 7-18 of '925), because

'925 discloses the same utility throughout the disclosed ranges.  
See MPEP 2144.05 I.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

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